

PATENT COOPERATION TREATY

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INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference P1370/WOD		FOR FURTHER ACTION		See Form PCT/PEA/416
International application No. PCT/GB2004/003363		International filing date (day/month/year) 04.08.2004	Priority date (day/month/year) 21.08.2003	
International Patent Classification (IPC) or national classification and IPC G01N35/00				
Applicant THE SECRETARY OF STATE FOR DEFENCE DSTL et al.				
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 8 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input type="checkbox"/> sent to the applicant and to the International Bureau a total of sheets, as follows:</p> <p><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>				
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the opinion</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input checked="" type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>				
Date of submission of the demand 21.06.2005		Date of completion of this report 06.12.2005		
Name and mailing address of the international preliminary examining authority:  European Patent Office - P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk - Pays Bas Tel. +31 70 340 - 2040 Tx: 31 651 epo nl Fax: +31 70 340 - 3016		Authorized Officer Cantalapiedra, I Telephone No. +31 70 340-4260 		

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Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language , which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3 and 23.1(b))
 - ☐ publication of the international application (under Rule 12.4)
 - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the **elements*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

Description, Pages

1-44 as originally filed

Claims, Numbers

1-24 as originally filed

Drawings, Sheets

1/10-10/10 as originally filed

☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing

3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages
 - ☐ the claims, Nos.
 - ☐ the drawings, sheets/figs
 - ☐ the sequence listing *(specify)*:
 - ☐ any table(s) related to sequence listing *(specify)*:
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages
 - ☐ the claims, Nos.
 - ☐ the drawings, sheets/figs
 - ☐ the sequence listing *(specify)*:
 - ☐ any table(s) related to sequence listing *(specify)*:

* If item 4 applies, some or all of these sheets may be marked "superseded."

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Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

1. The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non-obvious), or to be industrially applicable have not been examined in respect of:

☐ the entire international application,

☒ claims Nos. 24

because:

☐ the said international application, or the said claims Nos. relate to the following subject matter which does not require an international preliminary examination (specify):

☐ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. are so unclear that no meaningful opinion could be formed (*specify*):

☐ the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed.

☒ no international search report has been established for the said claims Nos. 24

☐ the nucleotide and/or amino acid sequence listing does not comply with the standard provided for in Annex C of the Administrative Instructions in that:

the written form

☐ has not been furnished

☐ does not comply with the standard

the computer readable form

☐ has not been furnished

☐ does not comply with the standard

☐ the tables related to the nucleotide and/or amino acid sequence listing, if in computer readable form only, do not comply with the technical requirements provided for in Annex C-*bis* of the Administrative Instructions.

☐ See separate sheet for further details

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Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	
	No: Claims	1-23
Inventive step (IS)	Yes: Claims	
	No: Claims	1-23
Industrial applicability (IA)	Yes: Claims	1-23
	No: Claims	

2. Citations and explanations (Rule 70.7):

see separate sheet

Re Item IV

Lack of unity of invention

This Authority considers that there are 2 inventions covered by the claims indicated as follows:

- I: Claims 1-23 directed to an apparatus for processing a fluid sample
- II: Claim 24 directed to a lid comprising a membrane

The reasons for which the inventions are not so linked as to form a single general inventive concept, as required by Rule 13.1 PCT, are as follows:

The prior art has been identified as document D2: WO 94/18565 and discloses:

An apparatus for processing a fluid sample comprising:

A platform (D2, features 14 and 15) comprising: a chamber suitable for receiving a sample (D2, feature 2) ;

An arm capable of being raised and lowered (D2, feature 11) and including means for removably attaching to the functional component such that said component may be raised and lowered with the arm (D2, pag 5, line 5-8); and a means for moving the platform such that any chamber or functional component may be aligned with respect to the arm (D2, pag 7, line 15-36).

It follows that the following technical feature of claims 1-23 make a contribution over the prior art and can be considered as a special technical feature within the meaning of Rule 13.2 PCT:

The platform includes a functional component, that can be grasped by the arm.

The problem solved by this special technical feature can therefore be construed as: to have the possibility of perform a plurality of operations with the same robotic arm (using the cutter or the sheath)

It follows that the following technical feature of claim 24 make a contribution over the prior

art and can be considered as a special technical feature within the meaning of Rule 13.2 PCT:

In that there is a lid comprising a membrane.

The problem solved by this special technical feature can therefore be construed as: to have a device for closure of a vessel.

Consequently, neither the objective problem underlying the subjects of the claimed inventions, nor their solutions defined by the special technical features allow for a relationship to be established between the said inventions, which involves a single general inventive concept.

In conclusion, the groups of claims are not linked by common or corresponding special technical features and define 2 different inventions not linked by a single general inventive concept.

The application, hence does not meet the requirements of unity of invention as defined in Rules 13.1 and 13.2 PCT.

Re Item V

Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

Reference is made to the following documents:

- D1: US-A-5 164 318 (MIMURA TOMONORI ET AL) 17 November 1992 (1992-11-17)
- D2: WO 94/18565 A (LABSYSTEMS OY ; TUUNANEN JUKKA (FI)) 18 August 1994 (1994-08-18)

1)The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of independent claims 1 and 18 is not new in the sense of Article 33(2) PCT.

Claim 1:

The document D1 discloses (the references in parentheses applying to this document):

An apparatus for processing a fluid sample comprising:

A platform (D1, feature 2) comprising: a chamber suitable for receiving a sample (D1, feature 22) ; and a functional component (D1, feature 9);

An arm capable of being raised and lowered (D1, feature 6) and including means for removably attaching to the functional component such that said component may be raised and lowered with the arm (D1, feature 6)); and a means for moving the platform (the platform in D1 is a carrying rotary disk, which implicitly implies that it has means to rotate the disk, and therefore for moving the platform) such that any chamber or functional component may be aligned with respect to the arm (D1, feature 2 and figures 9, where the functional component may be aligned with the arm by rotating the disk and the arm).

Claim 18:

The document D2 discloses (the references in parentheses applying to this document):

A method for processing a fluid sample wherein the method comprises:

placing a sample comprising an analyte into a first chamber located on a platform of an apparatus (D2, feature 2 and fig 4, representing the whole platform of the apparatus);
binding the analyte to a binding material to form an analyte-binding material complex (D2, pag 5, line 25-40)

lowering means for reversibly attracting said complex into said first chamber and allowing the complex to be attracted to said means (D2, pag 5, line 25-40);

raising said means from the first chamber (D2, pag 5, line 25-40);

moving said platform such that a second chamber is now aligned with the means for reversibly attracting said complex (D2, pag 7 , line 15-36)

lowering said means for reversibly attracting said complex into the second chamber and allowing the complex to detract from said means (D2, pag 7, line 15-36);

characterized in that the analyte is subjected to a physical processing step either in the first chamber or in the second chamber (D2, pag 8, line 4-6, where the first chamber or second chamber are the wells of the plates of the cassette, and the pre-heating will be

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done in those chambers).

2) Dependent claims 2-17 and 19-23 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty and/or inventive step, see documents D1 and D2 and the corresponding passages cited in the search report.